

RADIOLOGICAL CONTROLS SUPPORT TO THE NSRL

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Introduction

- Radiological controls support is required for the operation of the NSRL
- Radiation Work Permits
- Routine and Operational Surveys
- Area Monitoring
- Interdepartmental communications

Radiation Work Permits

- Permits are used to control radiological work as required by FS-SOP-4031 “Radiation Work Permits”

Routine and Operational Surveys

- Routine and Operational Radiation and Contamination surveys are performed to:
 - ◆ Document Radiological conditions and verify posting
 - ◆ Detect gradual build up of RAM
 - ◆ Verify effectiveness of engineering and process controls in containing RAM and reducing radiation exposure
 - ◆ Identify and control potential sources of individual exposure to radiation and/or RAM
 - ◆ Demonstrate compliance with regulations

Area Radiation Monitoring

- Passive area monitoring is conducted by using TLD's
 - ◆ TLD's placed inside and around the facility are used to verify postings and ensure no unmonitored personnel receive greater than 100 mRem in one year.
- Active area monitoring is conducted by using “Chipmunk” radiation detectors.
 - ◆ Alert alarm levels are set to indicate an area to be investigated.
 - ◆ Interlock alarm levels are set to secure beam operations.

Interdepartmental Communications

- A strong commitment to cooperation between NASA experimenters, C-AD and RCD has been key to operational success since NASA's first experiments in the A3 beam line.
- Communication involving the Medical, Biology, Collider-Accelerator Departments and the Radiological Controls Division is the cornerstone to this cooperation.
 - ◆ NASA coordinator, Dr. Marcelo Vasquez holds numerous pre-run meetings to work out all the details and coverage requirements for the upcoming run.

Additional Support

- Active RCD involvement in the following standing C-AD committees:
 - ◆ ALARA
 - ◆ ASSRC
 - ◆ ESRC
 - ◆ RSC
- Provide survey support to the facility Liaison Physicist during fault studies.
- Participate in the C-AD Tier I inspection program.
- Annual confirmatory air sampling in support of site NESHAP's compliance.